

To: Naranjo, Eugenia[Naranjo.Eugenia@epa.gov]
From: Clifford Firstenberg
Sent: Mon 2/6/2017 2:15:55 PM
Subject: RE: Matrix issues - update

Thank you.

-

Clifford E. Firstenberg

Principal and Environmental Sciences Manager

Tierra Solutions, Inc.

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Thank You.

From: Naranjo, Eugenia [mailto:Naranjo.Eugenia@epa.gov]
Sent: Monday, February 06, 2017 8:18 AM
To: Clifford Firstenberg <cfirstenberg@tierrasolutionsinc.com>
Cc: AccardiDey, AmyMarie <aaccardidey@louisberger.com>; Len Warner <lwarner@louisberger.com>; Franklin, Elizabeth A NWK <Elizabeth.A.Franklin@usace.army.mil>; Brian Mikucki <bmikucki@tierrasolutionsinc.com>
Subject: Re: Matrix issues - update

Cliff,

LBG is looking into this and we'll get back to you later today.

From: Clifford Firstenberg <cfirstenberg@tierrasolutionsinc.com>
Sent: Friday, February 3, 2017 12:24 PM
To: Naranjo, Eugenia
Cc: AccardiDey, AmyMarie; Len Warner; Franklin, Elizabeth A NWK; Brian Mikucki
Subject: Matrix issues - update

Eugenia – this is an update on where we stand with our laboratories regarding the matrix issues that are impacting data quality for the Phase III SI sediment data.

- Both Vista and Eurofins have moved the remaining sediment into frozen storage
- Vista's results are currently exceeding the target completeness criteria (although the completeness percentages are quite a bit lower than we have experienced in the past). They will carefully monitor performance, along with our data validator. If performance remains in compliance with the completeness targets, we may not need to do anything differently. If performance declines, we will use the frozen sediment to try a different approach(s) to clean-up and re-run the analyses.
- Eurofins prepared the following to determine if the extraction and analysis of an NBSA Phase III sediment sample using 1 gram and GPC clean-up will result in a sample extract that does not exhibit RT shifts for the congener analysis by 1668. Towards that end, the following steps will be followed:
 - o GPC has not been routinely used for congener analysis. Therefore, equipment used for this

clean-up will need to be calibrated and a ^{13}C labeled spike extract processed through to demonstrate acceptable background concentrations. Work to occur week of 2/6

- o A sediment sample will be selected from NB380, NB381 or NB382, one that exhibited significant RT shifting and matrix effect. This sample will be extracted and processed up to the point of clean-up. Work to occur week of 2/6.

- o After the GPC clean-up of the spiked blank is evaluated by congener instrument and determined to show acceptable background levels, the extracted sediment and associated QC will be put onto the GPC for GPC clean-up and subsequent column clean-up. Work to occur as soon after #1 as possible but may not be until week of 2/13.

- o Instrumental analysis and evaluation of GPC'd extract. Work to occur late week of 2/13, possibly into following week.

Eurofins will keep in close contact with Tierra and our data validator through this process. Once we see the results of this effort, we will be in a position to provide an updated schedule of delivery of results.

- Eurofins requested the following as part of its investigation into an alternate clean-up method:

- o Can we get the results of EPA's labs' analyses for the split sample results?

- o Can we get copies of EPA's labs' analysis reports?

- o Have the results been validated and, if so, can we get copies of the validation report(s)?

If you or your team have any questions/concerns, please advise and we can get answers or convene a call to discuss.

Thanks
Cliff

Clifford E. Firstenberg

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Thank You.